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DEPT. OF TRANSPORTATION

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# BEFORE THE U.S. DEPARTMENT OF TRANSPORTATION OFFICE OF THE SECRETARY WASHINGTON, D.C.

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U.SCHINA AIR SERVICES	:	Docket <b>OST-99-5539-</b> 5

## ANSWER OF FEDERAL EXPRESS CORPORATION TO APPLICATIONS OF UNITED AND NORTHWEST

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# BEFORE THE DEPARTMENT OF TRANSPORTATION OFFICE OF THE SECRETARY WASHINGTON, D.C.

U.SCHINA AIR SERVICES	: : :	Docket OST-99-5539-

## ANSWER OF FEDERAL EXPRESS CORPORATION TO APPLICATIONS OF UNITED AND NORTHWEST

Today, the U.S.-China market is so heavily imbalanced in favor of the designated U.S. combination carriers that they can offer more cargo capacity with their existing combination services than Federal Express can offer with its all-cargo services. Only Federal Express lacks daily service to China. In fact, both United Airlines and Northwest Airlines (with code-share authorizations) have the authority to offer daily service to both Beijing and Shanghai. It is this authority — the ability to provide daily service to China's major markets — that Federal Express requests and its U.S. shippers require.

As set forth below, the Department should proceed immediately to award the eight currently available frequencies to Federal Express so that it can inaugurate daily services to Beijing and Shanghai (with new service to Shenzhen), as set forth in its application. Only Northwest filed a competing application for those frequencies, and it has not shown that its proposal will offer benefits comparable to those that Federal Express would offer. Any delay in the award of the frequencies to Federal Express that

became available on April 1, 1999, disadvantages U.S. shippers and the competitive opportunities of U.S. exporters, and costs American businesses \$11 million a day.'

### I. Award of the Frequencies Requested by Federal Express Maximizes the Public Benefits and Best Serves the Needs of the U.S. Economy.

The U.S.-China market for air express/cargo services is substantially underserved, although either combination carrier can use its existing U.S.-China frequencies to provide all-cargo services under the bilateral, a fact the Department has repeatedly noted.<sup>2</sup> As a result, U.S. manufacturers, exporters, and shippers critically need the daily, high-quality and fully integrated air express/cargo services to Beijing and Shanghai that only Federal Express can offer. As its application demonstrates, Federal Express offers door-to-door express service that relies on documentation, customs clearance, logistical, and intermodal support integrated into a single time-definite delivery system for which it is directly responsible to the shipper. No other designated carrier offers these services despite the significant belly cargo capacity available with their existing services. Federal Express' daily door-to-door express services are what U.S. manufacturers, exporters, and shippers require to be competitive in the U.S.-China element of the global marketplace.

Moreover, Asian economies have experienced significant economic contractions that have adversely affected air carrier traffic to that region. There is, therefore, a critical

Exhibit FX-201.

Order **94-** 12-7 at **18-** 19; Order **95-2-30** at 11.

need for increased international trade and development in Asia. Federal Express' proposed services support that objective, and will speed economic recovery in the region. For all practical purposes, increased air express/cargo services will help develop the market for the benefit of all carriers, including combination carriers and their codesharing/alliance partners.

Federal Express is the only applicant to (a) provide detailed market analyses that demonstrate clearly the public benefits to the United States of its service proposal; and (b) present its own traffic forecasts to show that Federal Express will make valuable use of all its frequencies, by providing a much needed, daily service for all shippers, particularly those engaged in high-technology industries.

Federal Express' proposed service will offer far greater benefits to the U.S. economy than either Northwest or United. Exhibits FX-R-1 and FX-R-2 compare the expected economic benefits of the three carrier proposals. In the first year, Federal Express' added services would generate over \$4 billion in new economic activity for the United States, or \$505 million per weekly frequency requested. By contrast, Northwest's first-year proposal would generate only \$800 million in total benefits, or \$113 million per added frequency. Thus, the beneficial impact of Federal Express' proposal is 5 times that of Northwest's. In the first year, Federal Express' new services would transport and facilitate sufficient additional commerce to create an estimated 32,000 new jobs for the

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Exhibit FX-R-1. Of course, since United proposed no new service in the first year, its proposal would not benefit to the U.S. economy.

U.S. economy, while Northwest's new services would generate only 8,300 new jobs. On a per-frequency basis, Federal Express' proposal would thus create 3.4 times more jobs than Northwest%. In the second year, Exhibit FX-R-1 shows that the benefits to the U.S. economy of Federal Express' proposal would be 4.6 times that of Northwest's and more than eight times that of United's.

Federal Express has clearly demonstrated the public need and benefits that would accrue from an award of eight frequencies in the first year and six frequencies in the second year to Federal Express. In addition, the award of these frequencies to Federal Express will promote two of the Department's important goals: 1) full use of the all-cargo route authorized in the U.S.-China agreement; and 2) parity in competitive opportunities for the designated carriers. Finally, since the carrier designated for Route B has unlimited fifth-freedom traffic rights, allocation of the frequencies Federal Express requests will leave all ten of the third-year frequencies with valuable fifth-freedom authority. This will provide essential traffic support for the fourth U.S.-flag carrier commencing service to the U.S.-China market at that time.

As stated in Federal Express' application, air express/cargo services offer significantly more public benefits than traditional all-cargo services, including the ability to offer integrated intermodal deliveries to other important Chinese industrial centers.

For example, Federal Express is proposing the only all-cargo service to Beijing, which is

DOT Orders **94-12-7**, **95-2-30**, **98-**1 O-23, and Order **98-**1 l-4.

about 80 miles from the growing industrial markets, such as Tianjin.<sup>5</sup> The Tianjin Economic Development Area is a rapidly growing industrial center where over 400 U.S. companies, including Motorola, AT&T, Kraft, Emerson, American Standard, and Pepsi, have established a presence through direct investment!

Daily air express/cargo services between the United States and emerging industrial centers like Tianjin are vital to developing commercial opportunities for U.S. manufacturers, exporters, and shippers. U.S. enterprises compete with companies from other parts of the world, including Japan and Europe, to develop those opportunities, and the lack of early access to these markets can have long-term consequences that may be difficult, if not impossible, to overcome. Federal Express has the network capabilities, and the incentive, to assist its customers in the timely development of these opportunities.

In addition, the new frequencies would allow Federal Express to dedicate an MD-11 to daily on-line air express/cargo services to Shanghai and beyond, with a stop at Shenzhen, to its AsiaOne hub at Subic Bay. This allows Federal Express to connect Shanghai with its U.S. network via its hubs in Tokyo and Subic Bay.' Shanghai is the

<sup>5</sup> Exhibit FX-R- 13.

<sup>&</sup>lt;sup>6</sup> Exhibit FX-R- 13.

As set forth in its application, Federal Express proposes to establish new service to Shenzhen in the first year on its Subic Bay-Shanghai routing.

largest industrial center in China, with 18 trade zones or industrial parks within its borders.\*

Currently, the U.S.-Shanghai integrated air express/cargo market lacks daily all-cargo service. The lack of adequate service entails significant economic penalties for the United States. As set forth in its application, with the additional frequencies, Federal Express will provide daily all-cargo service to Shanghai, unlike Northwest's limited proposal. Federal Express' service plan also expands substantially U.S. exports to China both by air and by all modes within the next two years,' improving the U.S. balance of trade with China."

Federal Express is wholly committed to fully using all of its new U.S.-China capacity. As noted in its application, Federal Express will add additional transpacific capacity to its hubs in **Subic** Bay and Japan, or directly to China as market conditions (volumes, yields, traffic directionality, etc.) warrant in the future.

http://www.sh.com/zone/dzone.htm (visited April 23, 1999).

<sup>9</sup> Exhibits FX- 110 and FX-205.

Exhibit FX- 109.

# II. The Policy Of Achieving Parity Of Competitive Opportunities Requires The Department To Grant Federal Express' Request For Daily Service To Beijing And Shanghai.

As Northwest notes in its application, the Department has established a policy of establishing parity of competitive opportunity among designated carriers.' But, as United's application shows, the only designated carrier that lacks parity in the U.S.-China market is Federal Express. Both United and Northwest have daily on-line service in the Beijing market. Federal Express does not. Further, both United and Northwest (when its code-shared operations are included) offer daily service to Shanghai. Federal Express cannot. The total on-line cargo capacity of the combination carriers exceeds that of Federal Express, even without including Northwest's existing code-share authorizations with Air China. If Federal Express' request for eight first-year frequencies is granted, its effective share of the total frequencies available to U.S. carriers would increase from

Application of Northwest Airlines at 10, paragraph 8, citing DOT Orders **95-2-30** and **94-** 12-7. See *also*, DOT Order **98-** 1 O-23, affirmed by Order **98-** 1 1-4 (finding that an award of frequencies to United, which had fewer frequencies than American, would give both carriers comparable opportunities and increase competitive options at Heathrow).

Exhibit UA-9.

Exhibit FX-R- 14. The cargo capacity of both Northwest and United was calculated using an estimate of 32,000 lbs. of cargo capacity per flight. Application of United at 2; see also Exhibit 8 of Northwest's application describing its cargo capacity on combination aircraft, including baggage, of 44,000 lbs. per B-747. Of course, transpacific cargo capacity is diminished by the weight of added fuel.

11% to 28%. With the award of 6 more frequencies in the second year to Federal Express, its effective share would increase to 35%.<sup>14</sup>

### III. Neither United nor Northwest Has Presented an Economic Case for Their Additional U.S.-China Combination Services.

United's application proposes to use the valuable frequencies to inaugurate San Francisco-Shanghai nonstop service on top of its San Francisco-Tokyo-Shanghai operation. Since frequencies to Japan are unrestricted, however, United is free to use its existing China frequencies for non-stop service to Shanghai, replacing its current U.S.-Japan service with an additional turnaround flight to Tokyo. Interestingly, United's own U.S.-Shanghai traffic data<sup>15</sup> suggest the reason it has not already chosen to inaugurate nonstop service to Shanghai: a market like San Francisco with only 92 passengers per day each way simply will not support such service, especially in light of the competitive foreign-flag service available in this market. Therefore, the principal beneficiaries of United's proposed non-stop service would be travelers in the Japan-China market.

Exhibit FX-R- 15. This analysis includes Northwest's current code-share operations with Air China. It does not include any allowance for an increase in those operations that may result from the award of additional frequencies to Air China under the Protocol.

Exhibit UA-5.

United is clearly not confident that the U.S.-China passenger market will be strong enough to support additional nonstop services this year. This is understandable, since United's U.S.-China O&D passenger volumes have not increased significantly since 1995, as shown below:

	Uı		rlines U.SChina Passengers <sup>16</sup>
12	Months	Ended	Passenger Index (1995=1.00)
	Sept. 19	98	1.03
	Dec. 19	97	0.99
	Dec. 19	96	0.96
	Dec. 19	95	1.00

Recently, United has suffered significant yield erosion in the U.S.-China market as well.<sup>17</sup> Under these circumstances, any carrier would be cautious about making further short-run commitments to the market.

Similarly, Northwest's combination-service proposal appears to offer very few public benefits, perhaps because Northwest has also experienced yield erosion and declining load factors in the U.S.-China market. <sup>18</sup> It would dedicate all five of its first-year frequencies to the U.S.-Shanghai market, yet between its Detroit-Shanghai services and its code-shared services with Air China, it already offers its passengers ten weekly

U.S. DOT, International O&D Passenger Survey, accessed via Database Products.

Exhibit FX-R- 16.

Exhibits FX-R- 19 and FX-R-20.

frequencies between the United States and Shanghai. Northwest has provided no market forecast projecting the benefits (or need), if any, of this proposed new U.S.-Shanghai service. Further, Northwest has not identified those behind-gateway markets that might benefit from such service.

In the second year, Northwest requests two additional frequencies for combination services: one frequency for nonstop Detroit-Shanghai service, and one frequency to add to its current daily one-stop Detroit-Beijing schedule via Tokyo. Again, there is no explanation of the U.S. economic benefits that might derive from this service. <sup>19</sup>

### IV. Federal Express' Expanded All-Cargo Services Offer Substantially Greater Benefits Than Northwest's.

The economic benefits to be derived from Northwest's proposed all-cargo service would be substantially less than those of Federal Express' service proposal. Federal Express would use the frequencies to connect Shanghai with not only its transpacific flights at Tokyo's Narita airport, but also with the flights that connect at its AsiaOne hub at Subic Bay. Federal Express' proposal would therefore provide greater total capacity to

Although Northwest's application states that it will add three one-stop **Detroit-Tokyo-**Shanghai flights, analysis of its current schedule suggests that the Tokyo-Shanghai segment may be an extension of existing Detroit-Tokyo flights, using fifth freedom rights. Further, according to Northwest, it will offer first "continuous" nonstop Detroit-Shanghai service, although its application does not define what is meant by a "continuous" nonstop service. Application of Northwest at 5.

and from China with its MD-l 1 service than Northwest's proposed B-747F service.<sup>20</sup>

Further, Northwest is not able to provide the door-to-door fully integrated express services — described in Federal Express' application — that are the key to expanding global opportunities for U.S. businesses, particularly manufacturers, exporters, and shippers.<sup>21</sup> Those integrated express services include Federal Express' International Express Freight (IXF) products for expedited airport delivery of oversized shipments, as well as airport delivery of U.S. exports of hazardous cargoes.

Northwest proposes to use two frequencies in the first year to "inaugurate all-cargo services between Chicago/Seattle/Anchorage and Shanghai via Tokyo," (emphasis supplied) and to use two additional frequencies in the second year to provide additional all-cargo service between Chicago/Anchorage and Shanghai via Tokyo's Narita airport. However, the benefits of Northwest's proposal are minimal. Although Northwest's freighter proposal may provide on-line access to China for shippers located in the upper mid-west (served through Chicago and California), <sup>22</sup> at most this will only happen two days a week in the first year and four days a week in the second year. Northwest's freight

As set forth in its application, Federal Express will also add service to Shenzhen on its **Subic** Bay-Shanghai routing.

Northwest's small-package service is currently limited to the United States and Canada. Exhibit FX-R-21.

Northwest's current freighter schedule allows California traffic to connect to the China services at Anchorage or Tokyo.

proposal would be available to at most 40-41% of the total U.S.-China cargo market.<sup>23</sup> In this regard, a comparison of Northwest's proposed all-cargo service with its current service suggests that Northwest is proposing to add a Shanghai stop to its existing all-cargo flights 901 and 902, instead of adding new transpacific capacity.<sup>24</sup>

Federal Express, on the other hand, serves every address in the United States six days a week. And, every address is integrated into the Company's worldwide distribution network, including AsiaOne. As a result, every shipper and exporter in the U.S. would obtain fully integrated air express and air freight service six days a week if Federal Express' proposal is accepted, and the DOT awards its requested frequencies.

The only benefit Northwest identifies for its proposed all-cargo frequencies is its ability to carry heavy, oversized cargo with its nose-loading B-747F equipment.

However, there is no estimate of the marginal value of that benefit, which would appear to be insignificant. The charter market is already serving those shipments not suitable for MD-l 1 equipment. There is no evidence that the market for those shipments justifies the allocation of additional frequencies to Northwest, an allocation that would only exacerbate the existing imbalance in competitive opportunities among the incumbent U.S.-flag carriers.

Exhibits FX-R- 17 and FX-R- 18.

Existing flights NW-901 and NW-902 use the same departure and arrival times at Chicago, Anchorage, and Narita as the proposed Northwest freighter flights. Compare <u>OAG Air Cargo Guide</u> at A240 (April 1999) with Northwest Exhibit 7. Improbably, Northwest's proposed schedule also shows that the aircraft remains on the ground for almost 15 hours at Shanghai.

Finally, Federal Express does not in any way enjoy a monopoly on cargo, or even all-cargo services. As the Department has noted in Orders 94-12-7 and 95-2-30, the U.S.-China air services agreement has for many years allowed carriers designated for combination services the flexibility to operate passenger only, combination, and/or all-cargo services on their routes. Accordingly, those carriers may substitute all-cargo services at will — and both have the wide-body freighters to do so. Thus, the U.S.-designated airlines are both actual and potential competitors in the U.S.-China cargo market, as the Department has already found. Accordingly to the cargo services at will — and both actual and potential competitors in the U.S.-China cargo

#### V. Federal Express Proposes the Only Service to Shenzhen.

Federal Express' application contains the only proposal to serve Shenzhen, one of the fastest growing commercial centers in China. As described in its application, Federal Express proposes to inaugurate immediately service to Shenzhen on its new Subic Bay-Shanghai routing. In the second year, Federal Express proposes to inaugurate daily roundtrip service to Shenzhen from Subic Bay linking that market with daily on-line service to its AsiaOne network and its round-the-world MD-1 1 flight. Federal Express

See, e.g., U.S.-China Exchange of Notes, Feb. 10, 1992, paragraph 3 ("The airline(s) designated for routes 1 and 2 may operate combination or all-cargo services of both."); Protocol to U.S.-China Air Transport Agreement, April 8, 1999, Article 3.I.A. ("Any airlines designated by the Government of the United States of America for Route A shall be entitled to operate combination and all-cargo services with full traffic rights . . . .").

Order 94- 12-7 at 18. In this regard, nothing prevents Northwest from offering a "small-package express" service to China currently with its existing cargo capacity.

expects that this new service between the United States and southern China will stimulate significant additional express and freight traffic to that region.<sup>27</sup>

#### VI. DOT Should Immediately Grant the Application of Federal Express.

In conclusion, the Department should act promptly to grant Federal Express' application for the additional frequencies that are necessary to inaugurate immediate daily, on-line air express/cargo services between the United States and the major regions of Beijing, Shanghai, and Shenzhen. The applicants have been on notice for more than a year that these additional frequencies might become available and have had ample opportunity to prepare their proposals. Accordingly, the Department should act on the basis of the record before it, using show-cause procedures to award these valuable route rights.

As set forth in its application, Federal Express is uniquely positioned to bring the significant economic benefits of its services, together with its reliable supply chain management system and complete logistic services, to U.S. shippers, exporters, importers, and manufacturers. The award of the requested frequencies to Federal Express will maximize public benefits by supporting U.S. economic interests in these increasingly

Exhibits FX-301 and 302.

important Chinese markets, and promoting U.S. trade and economic policy objectives in Asia generally.

Respectfully Submitted,

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#### Certificate of Service

I hereby certify that I have this, that day of April	1999 caused the Answer of
Federal Express Corporation to Applications of United and Northwe	est to be served upon each
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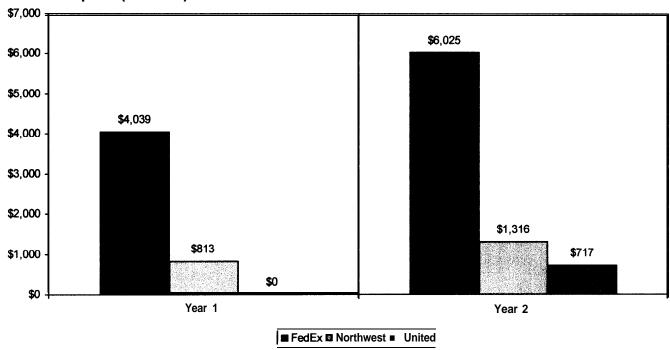
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#### **EXHIBITS**

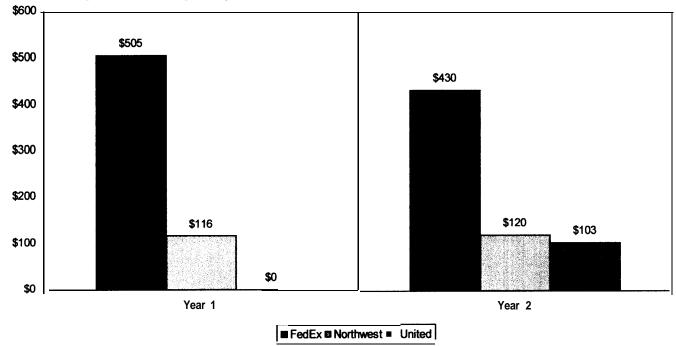
Description	Exhibit No.
The Proposed Federal Express U.SChina Service Will Generate Significantly	FX-R- 1
Greater Economic Benefits to the U.S. than either the Northwest or United	
Proposals	
The Proposed Federal Express U.SChina Service Will Generate 24,000 to	FX-R-2
34,000 More U.S. Jobs than either the Northwest or United Proposal	
The Federal Express Proposal Will Generate Three to Four Times as much	FX-R-3
Benefit to the U.S. Economy as the Northwest Proposal	
Summary of Maximum Impacts from Additional Northwest Frequencies	FX-R-4
Estimated Maximum Impacts from Additional Cargo Activity on Northwest	FX-R-5
Additional Freauencies	
Estimated Maximum Industrial Impact from Northwest's Proposal for	FX-R-6
Additional U.SChina Passenger Frequencies	
Estimated Airline Passenger Traffic, Revenues and Transportation Impacts for	FX-R-7
Northwest's Proposed Additional U.SChina Frequencies	
The Federal Express Proposal Will Generate Four Times as much Benefit to the	FX-R-8
U.S. Economy as the United Proposal in Year 2	
Summary of Maximum Impacts from Additional United Frequencies	FX-R-9
Estimated Maximum Impacts from Additional Cargo Activity on United	FX-R- 10
Additional Frequencies	
Estimated Maximum Industrial Impact from United's Proposal for Additional	FX-R-11
U.SChina Passenger Frequencies	
Estimated Airline Passenger Traffic, Revenues and Transportation Impacts for	FX-R-12
United's Proposed Additional U.SChina Freauencies	
Tianjin Economic Development Area	FX-R- 13
Northwest's and United's Current Allocation of U.S. Frequencies Provides for	FX-R-14
More Cargo Capacity than Federal Express Operates with its Highly Limited	
Schedule	
Federal Express Will Achieve Parity with Northwest and United by Year 2 Only	FX-R-15
If the DOT Grants all of Federal Express' Frequency Requests	
United Airlines' U.SChina Yields Have Declined Significantly since 1997	FX-R- 16
Northwest's Freighter Proposal Would Serve at most 40% of the China-U.S. Air	FX-R-17
Import Market While Federal Express Will Serve 100% Six Days a Week	
Northwest's Freighter Proposal Would Serve at most 41% of the U.SChina	FX-R- 18
Export Market While Federal Exnress Will Serve 100% Six Davs a Week	
Northwest Airlines' U.SChina Yields Have Declined Significantly since 1997	FX-R- 19
Northwest Airlines' U.SChina Load Factor Has Declined Significantly since	FX-R-20
1997	
Northwest Description of Small Package Service	FX-R-2 1
Distribution of U.SChina Air Trade by State of Origin/Destination	FX-R-22

# THE PROPOSED FEDERAL EXPRESS U.S.-CHINA SERVICE WILL GENERATE SIGNIFICANTLY GREATER ECONOMIC BENEFITS TO THE U.S. THAN EITHER THE NORTHWEST OR UNITED PROPOSALS

#### **Economic Impact (Millions)**



#### **Economic Impact Per Frequency**

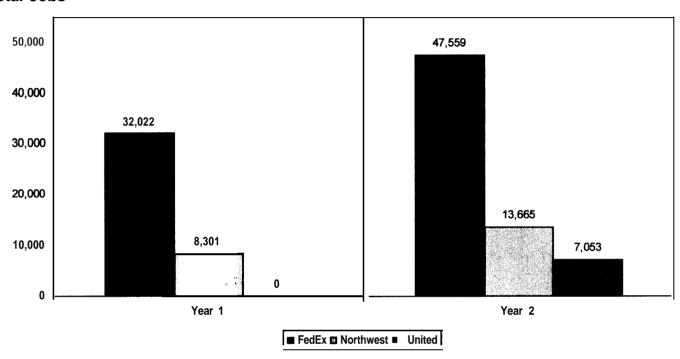


Source: Exhibit FX-R-3 and FX-R-8

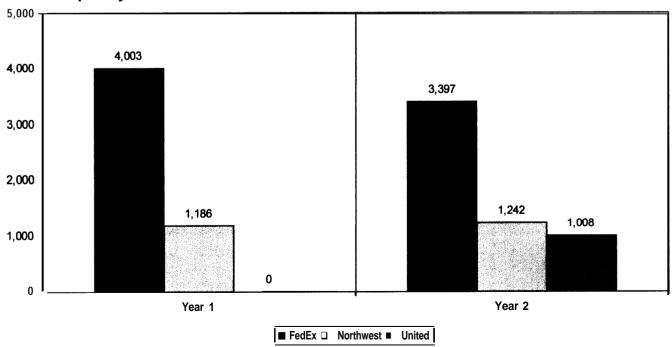
Docket OST-99-5539 Exhibit FX-R-2
Page 1 of 1

# THE PROPOSED FEDERAL EXPRESS U.S. - CHINA SERVICE WILL GENERATE 24,000 TO 34,000 MORE U.S. JOBS THAN EITHER THE NORTHWEST OR UNITED PROPOSAL

#### **Total Jobs**



#### **Jobs Per Frequency**



Source: Exhibit FX-R-3 and FX-R-8

# THE FEDERAL EXPRESS PROPOSAL WILL GENERATE THREE TO FOUR TIMES AS MUCH BENEFIT TO THE U.S. ECONOMY AS THE NORTHWEST PROPOSAL (Economic Benefits Expressed per Frequency)

	Forecast Year 1		Forecast Year 2		
	Direct		Direct		
	Impacts	Total	Impacts	Total 1/	
Federal Express Proposal					
Number of New Frequencies	8	8	14	14	
Impact Estimate					
Employment	14,645	32,022	21,588	47,559	
Compensation (Million \$)	\$653.6	\$1,325.5	\$971 .o	\$1,975.7	
Sales (Million \$)	\$2,071.3	\$4,039.0	\$3,083.4	\$6,024.5	
Impact per Frequency					
Employment	1,831	4,003	1,542	3,397	
Compensation (Million \$)	\$81.7	\$165.7	\$69.4	\$141 . <b>1</b>	
Sales (Million \$)	\$258.9	\$504.9	\$220.2	\$430.3	
Northwest Proposal					
Number of New Frequencies	7	7	11	11	
Impact Estimate					
Employment	4,114	8,301	6,753	13,665	
Compensation (Million \$)	\$147.2	\$281.8	\$239.5	\$456.7	
Sales (Million \$)	\$430.4	\$813.2	\$700.5	<b>\$1,31</b> 6.2	
Impact per Frequency					
Employment	588	1,186	614	1,242	
Compensation (Million \$)	\$21 .o	\$40.3	\$21.8	\$41.5	
Sales (Million \$)	\$61.5	\$116.2	\$63.7	\$119.7	
Ratio of Federal Express Nort	hwest Imnact ner	Additional Freque	ency	•	
Employment	3.1	3.4	2.5	2.7	
Compensation	3.9	4.1	3.2	3.4	
Sales	4.2	4.3	3.5	3.6	

Source: Exhibits FX-201 and FX-R-4.

Docket OST-99-5539 Exhibit FX-R-4
Page 1 of 1

### SUMMARY OF MAXIMUM IMPACTS FROM ADDITIONAL NORTHWEST FREQUENCIES

	F	orecast Year 1		Forecast Year 2			
	Direct		Impact	Direct		Impact	
	Impacts	Total 1/	Multiplier	Impacts	Total 1/	Multiplier	
Employment Impact							
Passenger							
Transportation	638	1,219	1.91	889	1,699	1.91	
Industrial	1,202	2,404	2.00	1,675	3,349	2.00	
Total	1,840	3,623	1.97	2,564	5,048	1.97	
Cargo							
Transportation	163	312	1.91	301	575	1.91	
Industrial	2,111	4,366	2.07	3.888	8.042	2.07	
Total	2,274	4,678	2.06	4,189	8,617	2.06	
Combined Total	4,114	8,301	2.02	6,753	13,665	2.02	
Compensation Impact (Million Passenger	n \$)						
Transportation	\$24.3	\$46.4	1.91	\$33.9	\$64.7	1.91	
Industrial	\$46.2	\$92.5	2.00	\$64.4	\$128.8	2.00	
Total	\$70.5	\$138.9	1.97	\$98.3	\$193.5	1.97	
Cargo							
Transportation	\$6.2	\$11.9	1.91	\$11.5	\$21.9	1.91	
Industrial	\$70.5	\$131.0	1.86	\$129.7	\$241.3	1.86	
Total	\$76.7	\$142.9	1.86	\$141.2	\$263.2	1.86	
Combined Total	\$147.2	\$281.8	1.91	\$239.5	\$456.7	1.91	
Sales Impact (Million \$) Passenger							
Transportation	\$69.4	\$132.6	1.91	\$96.8	\$184.8	1.91	
Industrial	\$136.0	\$272.0	2.00	\$189.5	\$379.0	2.00	
Total	\$205.4	\$404.6	1.97	\$286.2	\$563.8	1.97	
Cargo							
Transportation	\$17.7	\$33.9	1.91	\$32.7	\$62.6	1.91	
Industrial	\$207.2	\$374.7	1.81	\$381.5	\$689.9	1.81	
Total	\$224.9	\$408.6	1.82	\$414.2	\$752.4	1.82	
Combined Total	\$430.4	\$813.2	1.89	\$700.5	\$1,316.2	1.88	

<sup>1/</sup> Total cargo and passenger transporation impacts calculated from direct impacts and impact multipliers.

Source: Exhibits FX-R-5, FX-R-6 and FX-R-7.

Docket OST-995539 Exhibit FX-R-5
Page 1 of 1

### ESTIMATED MAXIMUM IMPACTS FROM ADDITIONAL CARGO ACTIVITY ON NORTHWEST ADDITIONAL FREQUENCIES

		Forecast Year 1				Forecast Year 2	
	Notes	Belly	Freighter	Total	Belly	Freighter	Total
Direct Traffic Impact							
Flights per Week	1	5	2	7	7	4	11
Estimated Cargo Capacity per Flight (000 lbs.)	2	32.0	220.0	•	32.0	220.0	"
Estimated Load Factor	3	32.0	220.0		32.0	220.0	
U.S China Export		50%	50%		50%	50%	
China • U.S. Import		60%	65%		60%	65%	
Annual Freight Traffic (000 lbs.)		0070	0070		0070	05 /0	
U.S China Export		4,160	11,440	15,600	5,824	22,880	28,704
China - U.S. Import		4,992	14.872	19.864	6,989	29,744	36,733
onnia • o.o. import	-	9,152	26,312	35,464	12,813	52,624	65,437
Direct Transportation Impact		3,132	20,512	55,464	12,010	02,024	00,401
Estimated Revenue per Lb.	4	\$1,00	\$1 .00		\$1 .00	\$1 .00	
Estimated Annual Revenues (000 \$)		\$9,152	\$26,312	\$35,464	\$12,813	\$52,624	\$65,437
Estimated Annual Revenues (000 \$) - Net New	5	\$4,576	\$13,156	\$17,732	\$6,406	\$26,312	\$32,718
Employee Compensation As Share of Revenues	6	35%	35%	Ψ11,102	35%	35%	ψ32,7 TO
Employee Compensation (000 \$)		\$1,602	\$4,605	\$6,206	\$2,242	\$9,209	\$11,451
Average Compensation per Employee	7	\$38,076	\$38,076	ψ0,200	\$38,076	\$38,076	Ψ11,431
Employment		42	121	163	59	242	301
Direct Industrial Impact							
Average Value per Lb.	8						
U.S China Export		\$23.00	\$23.00		\$23.00	\$23.00	
China - U.S. Import		\$14.00	\$14.00		\$14.00	\$14.00	
Estimated Trade Value (000 \$)							
U.S China Export		\$95,680	\$263,120	\$358,800	\$133,952	\$526,240	\$660,192
China • U.S. Import		\$69.888	\$208.208	\$278.096	\$97,843	\$416,416	\$514,259
	_	\$165,568	\$471,328	\$636,896	\$231,795	\$942,656	\$1,174,451
Estimated Trade (000 \$) - Net New to U.S. Firms	9	\$54,829	\$152,381	\$207,210	\$76,760	\$304,762	\$381,522
Employee Compensation As Share of Revenues	10	34%	34%		34%	34%	
Employee Compensation (000 \$)		\$18,642	\$51,809	\$70,451	\$26,099	\$103,619	\$129,717
Average Compensation per Employee	11	\$33,533	\$33,322		\$33,533	\$33,322	
Employment		556	1,555	2,111	778	3,110	3,888
Impact Multiplier	12	Sales	Compensation	Jobs	Sales	Compensation	Jobs
Transportation Impact	_	1.91	1.91	1.91	1.91	1.91	1.91
Industrial Impact		1.81	1.86	2.07	1.81	1.86	2.07

Northwest Exhibits 2 and 3.

Belly capacity assumes 32, 000 pounds available for freight (United Application page 8); freighter capacity from Northwest Exhibit 3.

<sup>&</sup>lt;sup>3</sup> Estimate.

<sup>&</sup>lt;sup>4</sup> Estimate.

<sup>&</sup>lt;sup>5</sup> Assumes 50 percent of cargo traffic is new stimulation with remainder diverted from other routings.

<sup>&</sup>lt;sup>6</sup> Average compensation share of total output for "Air Transportation" sector (Exhibit FX-212).

Average compensation per employee for "All Other Sectors" (Exhibit FX-213).

<sup>8</sup> Average value per pound for China-U.S. trade of "All Other" commodities (Exhibits FX-211 and 214).

<sup>9</sup> Assumes 50 percent of freight traffic is new stimulation and only 20 percent of import trade impact goes to U.S. firms.

Weighted average compensation share of total output for All Other Sectors" for exports and combined wholesale/retail trade for imports (Exhibits FX-211 and FX-212).

<sup>11</sup> Weighted average of compensation per employee for "All Other Sectors" for exports and combined wholesale/retail trade for imports (Exhibit FX-213).

<sup>&</sup>lt;sup>12</sup> Weighted average of impact multipliers for all-cargo export and import activity (Exhibit FX-203-205).

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### ESTIMATED MAXIMUM INDUSTRIAL IMPACT FROM NORTHWEST'S PROPOSAL FOR ADDITIONAL U.S.-CHINA PASSENGER FREQUENCIES

Line	ltem	Notes	Forecast Year 1	Forecast Year 2
1.	Net New Passengers	1	69,797	97,242
	Estimated Total Industrial Impact			
2.	Impact per Passenger	2	\$3,897	\$3,897
3.	Sales/Output Impact	3	\$271,998,909	\$378,952,074
4.	Employee Compensation As Share of Total Output	4	34%	34%
5.	Employee Compensation Impact	5	\$92,479,629	\$128,843,705
6.	Average Compensation per Employee	6	\$38,470	\$38,470
7.	Employment Impact	7	2,404	3,349
	Total-to-Direct Impact Multiplier	8	2.00	2.00
	Estimated Direct Industrial Impact	9		
	Sales/Output Impact		\$135,999,455	\$189,476,037
	Employee Compensation Impact		\$46,239,815	\$64,421,853
	Employment Impact		1,202	1,675

<sup>&</sup>lt;sup>1</sup> From Exhibit FX-R-7.

<sup>&</sup>lt;sup>2</sup> Estimated based on U.S. State Department briefing chart showing \$720 annual impact for a daily Dallas-Osaka flight with Boeing 777 assuming two-thirds of impact is passenger-related (\$3,897 = (\$720 million x 65%) / (730 one-way flights x 235 seats x 70% load factor)).

<sup>&</sup>lt;sup>3</sup> Line 1 x Line 2.

<sup>&</sup>lt;sup>4</sup> Average employee compensation as a share of total output for all sectors (Exhibit FX-212).

<sup>&</sup>lt;sup>5</sup> Line 3 x Line 4.

<sup>&</sup>lt;sup>6</sup> Average employee compensation per employee for all sectors, assuming 1.38 as the ratio of compensation to payroll income (Exhibit FX-213).

<sup>&</sup>lt;sup>7</sup> Line 5 / Line 6.

<sup>&</sup>lt;sup>8</sup> Multiplier of 2.0 which is typically used by the Air Transport Association and others in economic studies of passenger transportation.

<sup>&</sup>lt;sup>9</sup> Direct Impacts = Total impact / Multiplier.

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Page 1 of 1

# ESTIMATED AIRLINE PASSENGER TRAFFIC, REVENUES AND TRANSPORTATION IMPACTS FOR NORTHWEST'S PROPOSED ADDITIONAL U.S.-CHINA FREQUENCIES

			Forecast	Forecast
Line	Item	Notes	Year 1	Year 2
1.	Additional Weekly Passenger Frequencies		5	7
2.	Annual One-Way Flights		520	728
3.	Average Seat <b>s</b> erflights	1	413	411
4.	Annual Seats	2	214,760	299,208
5.	Estimated Average Load Factor (% of seats sold)	3	65%	65%
6.	Annual One-Way Passengers	4	139,594	194,485
7.	Estimated Share of Passengers That Are New to U.SChina Traffic	5	50%	50%
8.	Net New Passengers	6	69,797	97,242
	Estimated Direct Transoortation Imoact			
9.	1998 Average One-Way Fare	7	\$995	\$995
10.	Estimated Annual Passenger Revenue (Million \$)	8	\$69,448,015	\$96,755,790
11.	Employee Compensation As Share of Total Output	9	35%	35%
12.	Employee Compensation Impact	10	\$24,306,805	\$33,864,527
13.	Average Compensation per Employee	11	\$38,076	\$38,076
14.	Employment Impact	12	638	889
15.	Impact Multiplier	13	1.91	1.91

<sup>&</sup>lt;sup>1</sup> Weighted average assuming 5 new B-747-400 (418 seats) for first half of year 1; and 4 B-747-400's and 1B-747-200 (371 seats) in the second half of year 1; additional 6 B-747-400's and 1B-747-200 by year 2

<sup>&</sup>lt;sup>2</sup> Line 2 x Line 3.

<sup>&</sup>lt;sup>3</sup> Estimated based on Northwest's recent experience (Exhibit FX-R-20).

Line 4 x Line 5.

<sup>&</sup>lt;sup>5</sup> This assumes that 50 percent of the passengers will be diverted from other carriers and/or routings (some of which may be to countries other than China or the U.S.)

<sup>&</sup>lt;sup>6</sup> Line 6 x Line 7

<sup>&</sup>lt;sup>7</sup> Derived from the revenue data filed by Northwest to the U.S. DOT (International Origin-Destination Passenger Survey, 12 months ending September 1998).

<sup>8</sup> Line 8 x Line 9

<sup>&</sup>lt;sup>9</sup> Average employee compensation as share of total output for air transportation sector (Exhibit FX-212).

<sup>&</sup>lt;sup>10</sup> Line 10 x Line 11.

<sup>&</sup>lt;sup>11</sup> Average compensation per employee for "All Other Sectors" (Exhibit FX-213).

<sup>&</sup>lt;sup>12</sup> Line 12 / Line 13.

<sup>&</sup>lt;sup>13</sup> Total industry output multiplier for "Air Transportation" sector (Exhibit FX-212).

# THE FEDERAL EXPRESS PROPOSAL WILL GENERATE FOUR TIMES AS MUCH BENEFIT TO THE U.S. ECONOMY AS THE UNITED PROPOSAL IN YEAR 2

(Economic Benefits Expressed per Frequency)

	Forecast \	∕ear 1	Forecast	Year 2
	Direct		Direct	
	Impacts	Total	Impacts	Total 1/
Federal Express Proposal				
Number of New Frequencies	8	8	14	14
Impact Estimate				
Employment	14,645	32,022	21,588	47,559
Compensation (Million \$)	\$653.6	\$1,325.5	\$971 .o	\$1,975.7
Sales (Million \$)	\$2,071.3	\$4,039.0	\$3,083.4	\$6,024.5
Impact per Frequency				
Employment	1,831	4,003	1,542	3,397
Compensation (Million \$)	\$81.7	\$165.7	\$69.4	\$141.1
Sales (Million \$)	\$258.9	\$504.9	\$220.2	\$430.3
<u>United Proposal</u>				
Number of New Frequencies	0	0	7	7
Impact Estimate				
Employment			3,523	7,053
Compensation (Million \$)			\$130.2	\$252.8
Sales (Million \$)			\$371.9	\$717.3
Impact per Frequency				
Employment			503	1,008
Compensation (Million \$)			\$18.6	\$36.1
Sales (Million \$)			\$53.1	\$102.5
Ratio of Federal Express Northw	est Impact per Ad	dditional Frequenc	•	2.4
Employment			3.1 3.7	3.4 3.9
Comoensation			4.1	4.2
I Sales			4.1	4.2

Source: Exhibits FX-201 and FX-R-9.

Exhibit FX-R-9 Page 1 of 1

### SUMMARY OF MAXIMUM IMPACTS FROM ADDITIONAL UNITED FREQUENCIES

	Forecast Year 2				
	Direct		Impact		
	Impacts	Total 1/	Multiplier		
Employment Impact					
Passenger					
Transportation	946	1,807	1.91		
Industrial	1,499	2,999	2.00		
Total	2,445	4,806	1.97		
Cargo					
Transportation	70	133	1.91		
Industrial	1,008	2,115	2.10		
Total	1,078	2,248	2.09		
Combined Total	3,523	7,053	2.00		
Combined Total	3,323	7,000	2.00		
Compensation Impact (Million \$)					
Passenger	0000				
Transportation	\$36.0	\$68.8	1.91		
Industrial	\$57.7	\$115.4 \$184.2	2.00		
Total	\$93.7	\$184.2	1.97		
Cargo					
Transportation	\$2.6	\$5.1	1.91		
Industrial	\$33.9	\$63.6	1.88		
Total	\$36.5	\$68.7	1.88		
Combined Total	\$130.2	\$252.8	1.94		
Sales Impact [Million \$) Passenger					
Transportation	\$102.9	\$196.6	1.91		
Industrial	\$169.7	\$339.3	2.00		
Total	\$272.6	\$535.9	1.97		
Cargo					
Transportation	\$7.6	\$14.5	1.91		
Industrial	\$91.8	\$167.0	1.82		
Total	\$99.4	\$181.5	1.83		
Occabined Tetal	Ф074 O	Ф747 O	4.001		
Combined Total	\$371.9	\$717.3	1.93		

<sup>1/</sup> Total cargo and passenger transporation impacts calculated from direct impacts and impact multipliers.

Source: Exhibits FX-R-10, FX-R-11 and FX-R-12.

### ESTIMATED MAXIMUM IMPACTS FROM ADDITIONAL CARGO ACTIVITY ON UNITED ADDITIONAL FREQUENCIES

	Notes		Forecast Year 2	
Direct Traffic Impact				
Flights per Week	1		7	
Estimated Cargo Capacity per Flight (000 lbs.)	2		32.0	
Estimated Load Factor	3			
U.S China Export			60%	
China - U.S. Import			70%	
Annual Freight Traffic (000 lbs.)				
U.S China Export			6,989	
China - U.S. Import			8,154	
			15,142	
Direct Transportation Impact				
Estimated Revenue per Lb.	4		\$1. <b>00</b>	
Estimated Annual Revenues (000 \$)			\$15,142	
Estimated Annual Revenues (000 \$) - Net New	5		\$7,571	
Employee Compensation As Share of Revenues	6		35%	
Employee Compensation (000 \$)			\$2,650	
Average Compensation per Employee	7		\$38,076	
Employment			70	
Direct Industrial Impact				
Average Value per Lb.				
U.S China Export			\$23.00	
China - U.S. Import			\$14.00	
Estimated Trade Value (000 \$)				
U.S China Export			\$160,742	
China - U.S. Import			\$114,150	
			\$274,893	
Estimated Trade (000 \$) - Net New to U.S. Firms	9		\$91,786	
Employee Compensation As Share of Revenues	10		37%	
Employee Compensation (000 \$)			\$33,884	
Average Compensation per Employee	11		\$33,607	
Employment			1,008	
Impact Multiplier	12	Sales	Compensation	Jobs
Transportation Impact		1.91	1.91	1.91
Industrial Impact		1.82	1.88	2.10

<sup>&</sup>lt;sup>1</sup> United Exhibit UA-1

<sup>&</sup>lt;sup>2</sup> United Application (Page 8); assumes stated cargo capacity not used for baggage.

<sup>&</sup>lt;sup>3</sup> Estimates.

<sup>&</sup>lt;sup>4</sup> Estimates.

<sup>&</sup>lt;sup>5</sup> Assumes 50 percent of cargo **traffic** is new stimulation with remainder diverted from other routings.

<sup>&</sup>lt;sup>6</sup> Average compensation share of total output for "Air Transportation" sector (Exhibit FX-212).

Average compensation per employee for "All Other Sectors" (Exhibit FX-213).

<sup>8</sup> Average value per pound for China-U.S. trade of "All Other" commodities (Exhibits FX-211 and 214).

Assumes 50 percent of freight traffic is new stimulation and only 20 percent of import trade impact goes to U.S. firms.

Weighted average compensation share of total output **for"All** Other Sectors" for exports and combined wholesale/retail trade for imports (Exhibits FX-211 and 212).

Weighted average of compensation per employee for "All Other Sectors" for exports and combined wholesale/retail trade for imports (Exhibit FX-213).

<sup>&</sup>lt;sup>12</sup> Weighted average of impact multipliers for all-cargo export and import activity (Exhibit FX-203-205).

### ESTIMATED MAXIMUM INDUSTRIAL IMPACT FROM UNITED'S PROPOSAL FOR ADDITIONAL U.S.-CHINA PASSENGER FREQUENCIES

Line	Item	Notes	Forecast Year 2
1.	Net New Passengers	1	87,069
	Estimated Total Industrial Impact		
2.	Impact per Passenger	2	\$3,897
3.	Sales/Output Impact	3	\$339,307,893
4.	Employee Compensation As Share of Total Output	4	34%
5.	Employee Compensation Impact	5	\$115,364,684
6.	Average Compensation per Employee	6	\$38,470
7.	Employment Impact	7	2,999
	Total-to-Direct Impact Multiplier	8	2.00
	Estimated Direct Industrial Impact	9	
	Sales/Output Impact		\$169,653,947
	Employee Compensation Impact		\$57,682,342
	Employment Impact		1,499

<sup>&</sup>lt;sup>1</sup> From Exhibit FX-R-12.

<sup>&</sup>lt;sup>2</sup> Estimated based on U.S. State Department briefing chart showing \$720 annual impact for a daily Dallas-Osaka flight with Boeing 777 assuming two-thirds of impact is passenger-related (\$3,897 = (\$720 million x 65%) / (730 one-way flights x 235 seats x 70% load factor)).

<sup>&</sup>lt;sup>3</sup> Line 1 x Line 2.

<sup>&</sup>lt;sup>4</sup> Average employee compensation as a share of total output for all sectors (Exhibit FX-212).

<sup>5</sup> line 3 v line 4

<sup>&</sup>lt;sup>6</sup> Average employee compensation per employee for all sectors, assuming 1.38 as the ratio of compensation to payroll income (Exhibit FX-213).

<sup>&</sup>lt;sup>7</sup> Line 5 / Line 6.

<sup>&</sup>lt;sup>8</sup> Multiplier of 2.0 which is typically used by the Air Transport Association and others in economic studies of passenger transportation.

<sup>&</sup>lt;sup>9</sup> Direct Impact = Total impact / Multiplier.

#### ESTIMATED AIRLINE PASSENGER TRAFFIC, REVENUES AND

### TRANSPORTATION IMPACTS FOR UNITED'S PROPOSED ADDITIONAL U.S.-CHINA FREQUENCIES

Line	Item	Notes	Forecast Year 2
1.	Additional Weekly Passenger Frequencies		7
2.	Annual One-Way Flights		728
3.	Average Seats per flights		368
4.	Annual Seats	2	267,904
5.	Estimated Average Load Factor (% of seats sold)	3	65%
6.	Annual One-Way Passengers	4	174,138
7.	Estimated Share of Passengers That Are New to U.SChina Traffic	5	50%
8.	Net New Passengers	6	87,069
	Estimated Direct Transportation Impact		
9.	1998 Average One-Way Fare	7	\$1, <b>1</b> 82
10.	Estimated Annual Passenger Revenue (Million \$)	8	\$102,915,558
11.	Employee Compensation As Share of Total Output	9	35%
12.	Employee Compensation Impact	10	\$36,020,445
13.	Average Compensation per Employee	11	\$38,076
14.	Employment Impact	12	946
15.	Impact Multiplier	13	1.91

<sup>&</sup>lt;sup>1</sup> United Exhibit UA-8

<sup>&</sup>lt;sup>2</sup> Line 2 x Line 3.

<sup>&</sup>lt;sup>3</sup> Estimated based on Northwest's recent experience (Exhibit FX-R-20).

<sup>&</sup>lt;sup>4</sup> Line 4 x Line 5.

<sup>&</sup>lt;sup>5</sup> This assumes that 50 percent of the passengers will be diverted from other carriers and/or routings (some of which may be to countries other than China or the U.S.)

<sup>&</sup>lt;sup>6</sup> Line 6 x Line 7.

<sup>&</sup>lt;sup>7</sup> Derived from the revenue data filed by United to the U.S. DOT (International Origin-Destination Passenger Survey, 12 months ending September 1998).

<sup>&</sup>lt;sup>8</sup> Line 8 x Line 9.

<sup>&</sup>lt;sup>9</sup> Average employee compensation as share of total output for air transportation sector (Exhibit FX-212).

<sup>&</sup>lt;sup>10</sup> Line 10x Line 11.

<sup>&</sup>lt;sup>11</sup> Average compensation per employee for "All Other Sectors" (Exhibit FX-213).

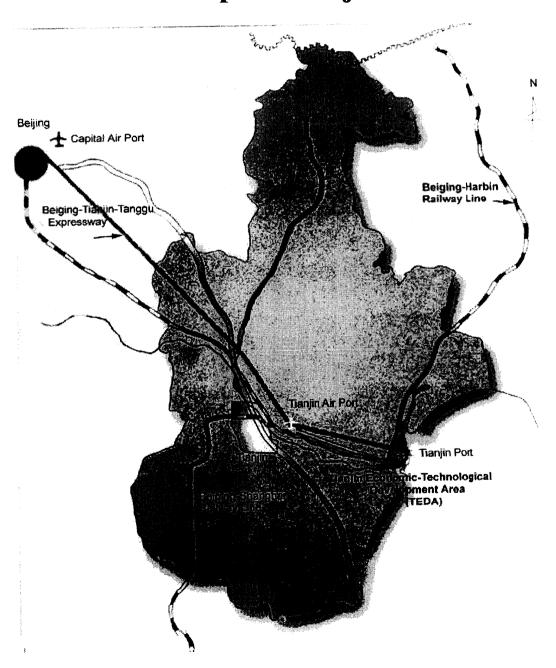
<sup>&</sup>lt;sup>12</sup> Line 12 / Line 13.

<sup>&</sup>lt;sup>13</sup> Total industry output multiplier for "Air Transportation" sector (Exhibit FX-212).

#### WELCOME TO



### Map of Tianjin



**TEDA** is situated in the southeast of the Tianjin, 30 miles from the downtown areas. It starts from the

Jin-Tang Highway (Xingang No. 4 Highway) in the south, and ends at Beitang Town in the north. It borders on the Beijing-Harbin Railway Line in the west, and on the Tianjin Xingang Port in the east.

It is 90 miles from Beijing, the nation's capital, a one and a half hours drive by the Beijing-Tianjin-Tanggu Expressway. 23 miles to its west is the Tianjin International Airport. Close to its southwest is the Tanggu District of Tianjin with a population of 420,000.

| Map of China | Map of Company locations in TEDA | | World Map |

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----- OF SPECIAL INTEREST -----

| Microelectronic Industrial Park (MIP) | Chemical Industrial Zone (CIZ) | | Yixian Scientific and Industrial Park (YSP) |



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#### WELCOME TO



# About Tianjin Economic Development Area (TEDA)

The establishment of Tianjin Economic Technological Development Area (TEDA) was approved by the State Council of China on December 6, 1984. TEDA is located in the southeast of Tianjin, and has a planned area totaling 33 square kilometers. It is an economic zone mainly for developing Sinoforeign equity joint ventures, Sino-foreign contractual joint ventures and foreign capital enterprises. It enjoys preferential policies, incentives and flexible measures granted to special economic zones in China.

The goal of TEDA is to build itself into an export oriented economic center with foreign trade as the guiding factor, modern industries as its foundation, and harmonious development of the tertiary industries such as finance, commerce, and trade, thus, creating the largest free port in northern China.

After twelve years development, TEDA has become the most successful economic development area in China. The fully developed infrastructure, the self-sufficient utilities supply, the well established legal system, the efficient and westernized administration, the strong industrial support from the near industrial bases and the well educated work force are all the factors contributing to the success of foreign investors. TEDA is now home to more than 2,700 foreign funded companies, among them are well known names such as Motorola, AT&T, AST, Kraft General Foods, Pepsi, Emerson, American Standard, PPG, Heinz and General Instrument of the USA; SEW and SMG of German; Mitsui, Yamaha and Yazaki of Japan; Samsung, Hyundai and LG of Korea; President of Taiwan, Novo Nordisk of Denmark, Nestle and Sandoz of Switzerland and Universal of Singapore.

By the end of 1996, the total agreed investment of companies with foreign investment has totaled US\$7.785 billion, of which the largest contribution of US\$1.887 billion comes from the 402 US companies. The total sales of the companies at TEDA reached US\$3.4 billion in 1996. Over the 12 years since her inception, the GDP of TEDA has been growing at average annual rate of over 60%, ending 1996 US\$1.58 billion. Eight major industries are well established, namely electronic and electric industry, food industry, machinery industry, chemical industry, metallurgical industry, apparel, cultural-educational-sports appliances and apparatus and rolled steel.

To find more detailed information about TEDA, please check out the following topics.

- Natural Environment . Location . Terrain . Geology . Meteorology
- Market Range
- Industrial Foundation Industry Science and Technology Human Resources •

Natural Resources

- Communication and Transportation By Sea By Railway By Road By Air
- Infrastructure Facilities and Utilities Water supply Electric power supply Gas supply Heat supply Telecommunication
- Forms of Investment Sino-Foreign Equity Joint Venture: Sino-Foreign Contractual Joint Venture: Foreign Capital Enterprise:
- Procedures of Making Investment Obtaining Business Licenses Having the company stamp engraved • Going through registrations
- Industrial Policies The principles for development of industries The major industries sectors to be encouraged
- Financial Policies Conditions for applying to local banks for loans: Loan Classification, Credit Period and interest: Foreign Exchange Control
- Tax Policies Enterprise Income Tax Value-Added Tax (VAT) Consumption Tax Business Tax Urban House-Property Tax Vehicles and Vessels License Plate Tax Customs Duties and Taxes Withholding Tax Individual Income Tax Stamp TAX

Appendix A: Cost of Utilities

Appendix B: Land Fees and Rentals

Appendix C: Transportation and Storage Charges

Appendix D: Shipping Lines and Schedules of Tianjin Port

Appendix F: Living and Recreational Facilities

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----- OF SPECIAL INTEREST -----

Microslactuonia Industrial Pauls (MID) I Chamical Industrial Zona (CIZ)

| Microelectronic Industrial Park (MIP) | Chemical Industrial Zone (CIZ) | | Yixian Scientific and Industrial Park (YSP) |



**TEDA America, Inc.** 489 Fifth Avenue, 28th Fl. New York, NY 10017

Telephone: 212-490-8332 Fax: 212-490-8352 Docket OST-99-5539 Exhibit FX-R-14
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# NORTHWEST'S AND UNITED'S CURRENT ALLOCATION OF U.S. FREQUENCIES PROVIDES FOR MORE CARGO CAPACITY THAN FEDERAL EXPRESS OPERATES WITH ITS HIGHLY LIMITED SCHEDULE

Weekly One-Way Capacity (Pounds)

•	Round-	,	Aircraft	Total
	trip	One-Way	Payload	Weekly
	Frequency	Flights	Capacity	Capacity 2/
•	(1)	(2)	(3)	(4)
Federal Express				
MD 11	4	8	180,000 lbs.	<b>1,440,000</b> lbs.
Northwest				
B-747-4001200	9	18	32,000 1/	576,000
المناهم ما				
<u>United</u> B-747-400/200	14	28	32,000 1/	896,000
			•	· · · · · ·
Northwest/United Total				<b>1,472,000</b> lbs.

<sup>1/</sup> Excludes baggage allowance from United's Application, page 2.

<sup>2/</sup> Column (2) x Column (3).

Docket OST-99-5539 Exhibit FX-R-15
Page 1 of 1

# FEDERAL EXPRESS WILL ACHIEVE PARITY WITH NORTHWEST AND UNITED BY YEAR 2 ONLY IF THE DOT GRANTS ALL OF FEDERAL EXPRESS' FREQUENCY REQUESTS

Effective Frequencies

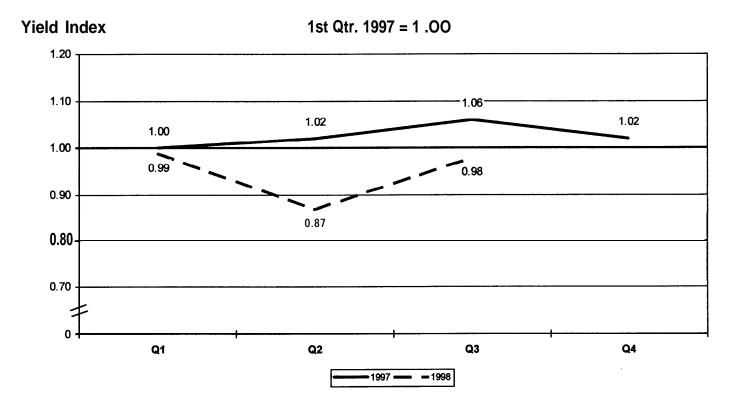
	Encouve i requencies									
		Share	Year 1			Year 2				
	Current		Change		Total	Share	Change		Total	Share
Federal Exoress	4	11%	+8		12	28%	+6		18	35%
Northwest										
- Own	9	26%	0		9	21%	0		9	17%
- Code Share 1/	8	23%	?	2/	8	19%	?	2/	8	15%
- Subtotal	17	49%	0	_	17	40%	0	_	17	33%
United	14	40%	0	_	14	33%	+3	3/_	17	33%
Total	35	100%			43	100%			52	100%

<sup>1/</sup> Frequencies operated by Air China as code-sharing flights with Northwest (Exhibit UA-9).

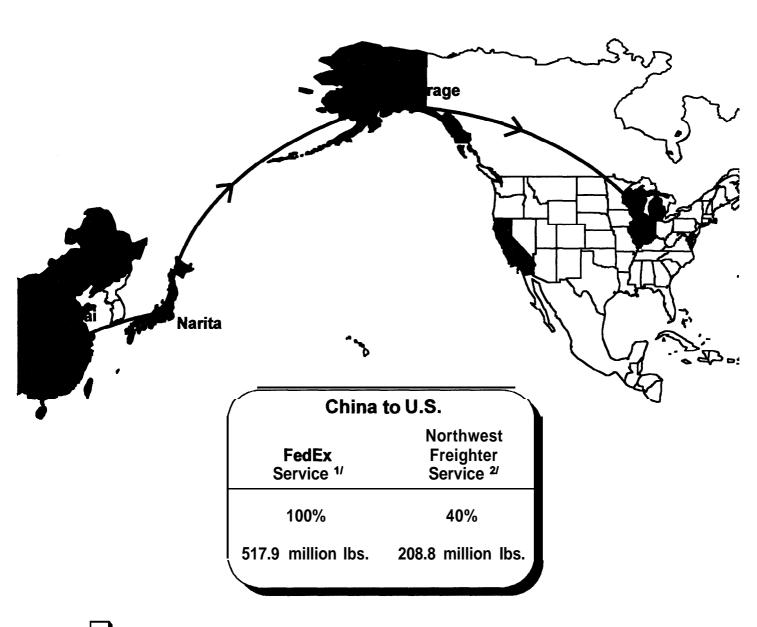
<sup>2/</sup> In all likelihood, Air China will be granted multiple new frequencies from China's new pool available from the MOC.

<sup>3/</sup> For purposes of the calculations in this exhibit, Federal Express assumes that United would receive the remaining three frequencies in Year 2.

### UNITED AIRLINES' U.S. - CHINA YIELDS HAVE DECLINED SIGNIFICANTLY SINCE 1997



# NORTHWEST'S FREIGHTER PROPOSAL WOULD SERVE AT MOST 40% OF THE CHINA - U.S. AIR IMPORT MARKET WHILE FEDERAL EXPRESS WILL SERVE 100% SIX DAYS A WEEK

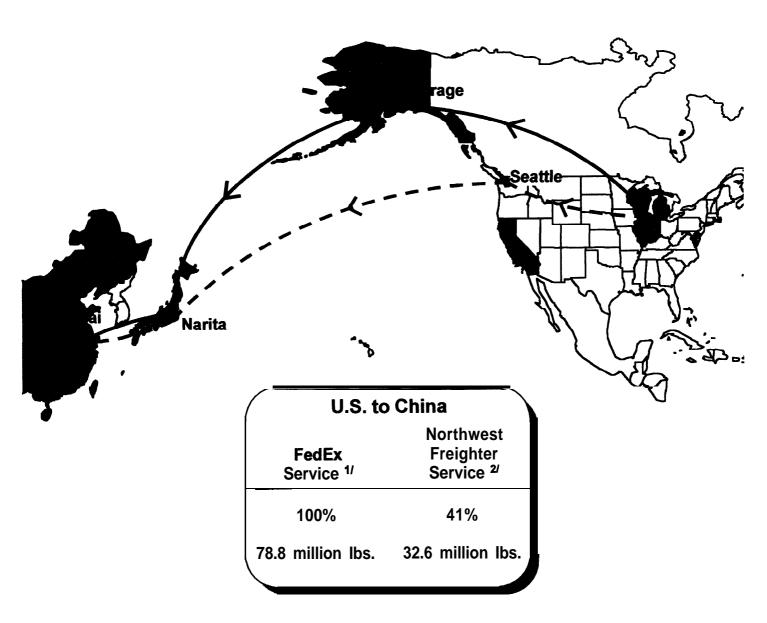


States to be served by Northwest at least twice a week

11 Six days a week 2/ Four days a week or less

Source: Exhibits Northwest 7 and FX-R-22

# NORTHWEST'S FREIGHTER PROPOSAL WOULD SERVE AT MOST 41% OF THE U.S. - CHINA AIR EXPORT MARKET WHILE FEDERAL EXPRESS WILL SERVE 100% SIX DAYS A WEEK





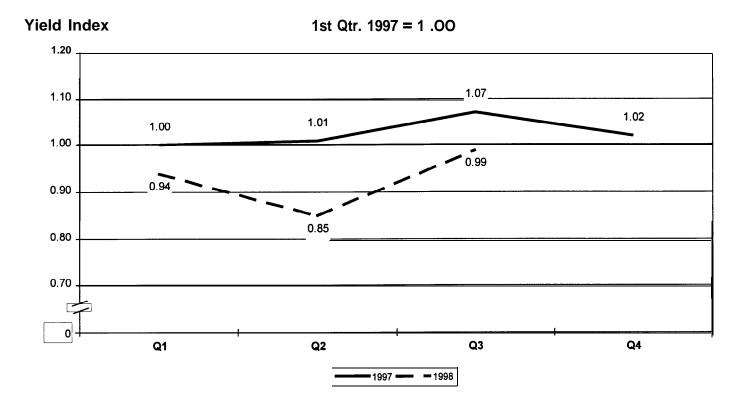
States to be served by Northwest at least twice a week

One day a week

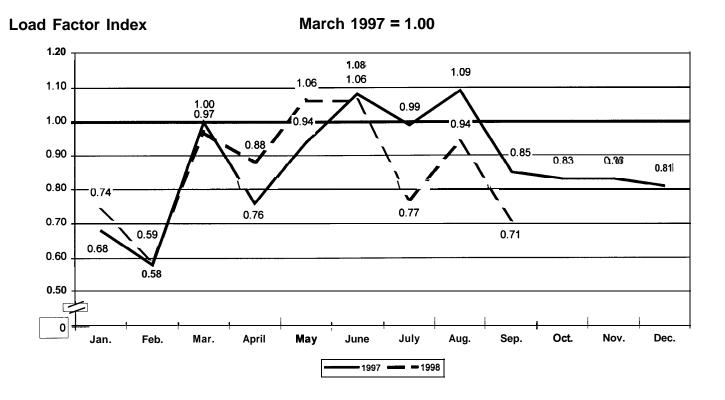
1/ Six days a week 2/ Four days a week or less

Source: Exhibits Northwest 7 and FX-R-22

### NORTHWEST AIRLINES' U.S. - CHINA YIELDS HAVE DECLINED SIGNIFICANTLY SINCE 1997



### NORTHWEST AIRLINES' U.S. - CHINA LOAD FACTOR HAS DECLINED SIGNIFICANTLY SINCE 1997





#### **Northwest Services**

**4** Cargo & Luggage Services





#### VIP Same Day Package Services,

VIP Same Day Package Service provides same day package delivery, seven (7) days a week. for shipments weighing up to 100 pounds (45 kilograms). Service is available within the United States (including Alaska and Hawaii): Canada. and Puerto Rico. VIP Same Day Package Service can coordinate pick-up and delivery from your location, or you may choose to drop off and pick up your package.

#### Package pick-up and delivery

VIP Same Day Package Service can coordinate pick-up and delivery of your package.

- Call 1-800-638-7337 to arrange to have your package picked up within 60 minutes. transported on the next flight, and delivered within 90 minutes of flight arrival at the destination.
- VIP Same Day Package Service will call to confirm delivery of your package.

You may also choose to personally drop off and pick up your package.

- Call 1-800-NWCARGO (I-800-692-2746) to locate a VIP Same Day Package Service facility near you or for automated f-light information.
- Drop off your package at the VIP Same Day Package Service location within the airport terminal at least 30 minutes prior to the scheduled flight departure (90 minutes at air freight facilities).
- Pick up your package at the VIP Same Day Package Service location within the destination airport 30 minutes after flight arrival. If you are unable to pick up your package. arrangements for delivery can be made in advance with Northwest Cargo.

#### Track your shipment

Your VIP Same Day Package Service shipment can be tracked on the Internet. To check the status of your shipment use our online Track Your Package feature.

#### Northwest guarantees on-time delivery

Every VIP Same Day Package Service shipment has a 100% money-back guarantee. Door-to-door VIP Same Day Package

Service shipments will be delivered within 90 minutes of flight arrival -- or your money back. Airport-to-airport VIP Same Day Package Service shipments will be available for pick up within 30 minutes of flight arrival -- or your money back. The money back guarantee will not apply when weather conditions, mechanical delays or other reasons beyond the control of Northwest Airlines cause the delay.

#### For more information

Contact us via email or call 1-800-N WCARGO (1-800-692-2746) for more information on schedules, rates, and details on how to establish an account.

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### DISTRIBUTION OF U.S.-CHINA AIR TRADE BY STATE OF ORIGIN/DESTINATION (1998) Sorted by Combined U.S. Import and Export Weight

37,192   6.2%   9,647   12.2%   27,00   12,398   4.6%   3,108   3.9%   24,00   12,398   4.6%   3,108   3.9%   24,00   12,398   4.6%   3,108   3.9%   24,00   12,50	s.) Total
California         149,723         25.1%         17,444         22.1%         132,           New York         38,671         6.5%         4,778         6.1%         33,           Illinois         37,192         6.2%         9,647         12.2%         27,           Ohio         27,398         4.6%         3,108         3.9%         24           Texas         25,654         4.3%         4,727         6.0%         20,           Michigan         25,308         4.2%         2,752         3.5%         22,           Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12	279 25.5% 893 6.5% 545 5.3% 290 4.7%
New York         38,671         6.5%         4,778         6.1%         33           Illinois         37,192         6.2%         9,647         12.2%         27           Ohio         27,398         4.6%         3,108         3.9%         24           Texas         25,654         4.3%         4,727         6.0%         20           Michigan         1         25,308         4.2%         2,752         3.5%         22           Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         1         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8% <th>893 6.5% 545 5.3% 290 4.7%</th>	893 6.5% 545 5.3% 290 4.7%
New York         33,671         6.5%         4,778         6.1%         33           Illinois         1 37,192         6.2%         9,647         12.2%         27           Ohio         27,398         4.6%         3,108         3.9%         24           Texas         25,654         4.3%         4,727         6.0%         20           Michigan         1 25,308         4.2%         2,752         3.5%         22           Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         1 5,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         1 14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10	893 6.5% 545 5.3% 290 4.7%
State	545 5.3% 290 4.7%
Ohio         27,398         4.6%         3,108         3.9%         24           Texas         25,654         4.3%         4,727         6.0%         20,           Michigan         1         25,308         4.2%         2,752         3.5%         22,           Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10 </td <td>290 4.7%</td>	290 4.7%
Texas         25,654         4.3%         4,727         6.0%         20, Michigan           Michigan         1         25,308         4.2%         2,752         3.5%         22, Massachusetts           Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1	
Michigan         1         25,308         4.2%         2,752         3.5%         22,           Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,425         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10           Kentucky         9,074         1.5%         630         0.8%         8 </td <td>927 4.0%</td>	927 4.0%
Massachusetts         22,903         3.8%         3,537         4.5%         19           Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         1 14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10,           Connecticut         11,808         2.0%         836         1.1%         10,           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6	
Pennsylvania         21,176         3.5%         3,835         4.9%         17           New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	556 4.4%
New Jersey         18,437         3.1%         2,195         2.8%         16           Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	366 3.7%
Indiana         15,135         2.5%         1,072         1.4%         14           Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	342 3.3%
Arizona         14,443         2.4%         1,377         1.7%         13           Colorado         14,125         2.4%         1,524         1.9%         12           Wisconsin         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	242 3.1%
Colorado         14,125         2.4%         1,524         1.9%         12, 12, 12, 12, 12, 12, 12, 12, 12, 12,	
Wisconsin         I         14,059         2.4%         1,713         2.2%         12           North Carolina         12,578         2.1%         2,187         2.8%         10,           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10,           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	
North Carolina         12,578         2.1%         2,187         2.8%         10,           Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10,           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	
Connecticut         11,808         2.0%         836         1.1%         10           Georgia         11,733         2.0%         1,521         1.9%         10           Virginia         10,943         1.8%         802         1.0%         10,8           Kentucky         9,074         1.5%         630         0.8%         8           Washington         8,356         1.4%         1,683         2.1%         6           Minnesota         8,142         1.4%         2,562         3.3%         5	
Georgia     11,733     2.0%     1,521     1.9%     10       Virginia     10,943     1.8%     802     1.0%     10       Kentucky     9,074     1.5%     630     0.8%     8       Washington     8,356     1.4%     1,683     2.1%     6       Minnesota     8,142     1.4%     2,562     3.3%     5	
Virginia     10,943     1.8%     802     1.0%     10       Kentucky     9,074     1.5%     630     0.8%     8       Washington     8,356     1.4%     1,683     2.1%     6       Minnesota     8,142     1.4%     2,562     3.3%     5	
Kentucky     9,074     1.5%     630     0.8%     8       Washington     8,356     1.4%     1,683     2.1%     6       Minnesota     8,142     1.4%     2,562     3.3%     5	
Washington       8,356       1.4%       1,683       2.1%       6         Minnesota       8,142       1.4%       2,562       3.3%       5	
Minnesota 8,142 1.4% 2,562 3.3% 5	444 1.6%
· · · · · · · · · · · · · · · · · · ·	673 1.3%
Maryland 1,115 1.5% 195 1,0% 0.	,580 1.1% ,978 1.3%
	978 1.3% 818 1.3%
	063 1.2%
<u>-</u>	
· · · · · · · · · · · · · · · · · · ·	,913 0.8% ,090 1.0%
	463 0.9%
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· · · · · · · · · · · · · · · · · · ·	186 0.8%
7,000	639 0.9%
·	927 0.8%
•	803 0.7%
·	186 0.6%
· · ·	199 0.6%
·	975 0.6%
	810 0.5%
·	834 0.5%
·	423 0.5%
· · · · · · · · · · · · · · · · · · ·	,729 0.3%
	,740 0.3%
	,777 0.3%
V	,722 0.3%
	, 210 0.2%
	835 0.2%
	015 0.2%
· · · · · · · · · · · · · · · · · · ·	751 0.1%
North Dakota 591 0.1% 3 0.0%	587 0.1%
	438 0.1%
	253 0.0%
Wyoming 158 0.0% 2 0.0%	156 0.0%
Alaska 86 0.0% 6 0.0%	79 0.0%
Total - U.S.	
(excluding Puerto Rico/Virgin Islands) 596,670 100.0% 78,818 100.0% 517,	851 100.0%
Total - NW Service Area (IL, IN, MI, WI, CA & 241,504 40.5% 32,635 41.4% 208,	

Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Statistics

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